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EXAMINER

CHOW, CHARLES CHIANG

ART UNIT PAPER NUMBER

2685

DATE MAILED: 10/27/2003

10

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/597,607

Applicant(s)

RAO ET AL.

Examiner

Charles Chow

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 8/15/2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 19-42 is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**Office Action for  
Applicant's Amendment  
(8/15/2003)**

1. Regarding applicant's amendment, the 35 USC § 112, second paragraph rejection for claim 1 has been removed from this office action. Because applicant made a correction for the word, "select".
2. Withdrawn the objection to the oath in last office action, because oath is received on 1/22/2001.
3. Regarding applicant's amendment for adding new claims 13-42, based on the no teaching for the means for dynamically reconfiguring of the entire keyboard; means for voice recognition; hand writing recognition; the central server; the means for leveraging the tremendous processing power of the intelligent keyboard; the grounds of rejection is changed by including Callaghan (US 6,058,304) and Lamb Jr. (US 5,276,794).

Callaghan teaches a multifunction communication device (base unit 40 with pen 10 of the data entry system in Fig. 1-2, abstract; col. 4, line 33 to col. 5, line 10) for communication with remote processor center, having wireless cellular network interface to remote processor center (col. 4, line 62 to col. 5, line 10; col. 18, line 61 to col. 19, line 3, abstract). Callaghan teaches the telephone interface 116 and Asic 150 (Fig. 10) and Asic 150 comprises telephone transmitter/receiver 170/172 (Fig. 12).

Callaghan teaches the central portable compute, command and control means for voice and data information (col. 18, lines 25-43, where handheld data entry device has controller for selecting command from input signal processing for communication with remote processing center for the downloading information). Callaghan teaches the touch screen 90

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(Fig. 8, col. 13, lines 5-18). Callaghan further teaches the text, graphics and data from to the server, because Callaghan teaches the coded data having language or image, and fingerprints, signature, written text (as shown in col. 24, lines 62-67; col. 25, lines 9-11). Callaghan teaches the remote processing center of the wireless cellular network for communication with the handheld data entry device (as shown above) using telecomm. interface (col. 22, lines 9-21; col. 22, lines 38-48). Callaghan teaches the control card for pen 10 can be a keyboard (col. 9, lines 60-65).

Lamb teaches the intelligent keyboard (pop-up keyboard, figure in cover page, Fig. 4a/4B) by tapping (col. 4, line 38; col. 4, line 62; col. 4, lines 32-66) a touch sensitive screen (col. 3, lines 36-51) using a pen for entering alphanumeric information into data field 16 or price information (Fig. 4B). Lamb teaches the configuring the touch screen input from screen in Fig. 4A to Fig. 4B. Lamb teaches the selected functionality on the touch screen by tapping customer name field area 16 (Fig. 4A) and the price field (Fig. 4B) for actuating the input and output functionality (popup keyboard and data field) on the touch screen by the touch sensitive tapping means.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Lata et al. (US 4,853,888).

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Regarding **claim 1**, Lata discloses a keyboard comprising a plurality of configurable keys (programmable multifunction keyboard 16, with plurality of keys 18, figure in cover page, abstract).

Lata discloses the central server (host system 10, the keyboard processor 12, figure in cover page, Fig. 1, 2) means for dynamically configuring a legend on a selected key from the configurable keys (the display of legend for key; the dynamically changing keyboard configuration from configuration 70 to configuration 72, and further to configuration 74; the database, within the keyboard processor 12, stores the dynamically modified keyboard configuration; col. 4, lines 48 to col. 5, lines 24; Fig 2, Fig. 4-5, Fig. 7, Fig. 17-18).

Lata discloses means for detecting an actuation of the selected key with the legend (the actuation control means 46 for monitoring the switch such that when switch is activated, an actuation signal is generated to identify the actuated switch; col. 17, lines 44-48).

Lata discloses means for associating the actuation of the selected key with the legend on the selected key (the displayed each legend is associated with each key switch; col. 17, lines 38-38).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lata in view of Buisson et al. (US 4,844,637).

In the above, Lata does not clearly indicate the liquid crystal display LCD, although Lata has shown above the displayed legend for each key.

Regarding **claim 2**, Buisson teaches the plurality of keys each include an LCD device.

Buisson teaches the assigning defined distinct configuration for each key of the keyboard requested by operator (abstract). Buisson teaches the graphic flat panel display is a liquid crystal display LCD to display the symbol assigned to each key (abstract). It would be obvious to include Buisson's flat display LCD for displaying configured symbols (anti-reflection, col. 1, lines 46) assigned to each key by the operator, to Lata such that the display of the symbol would be improved by using Buisson's efficient LCD display for the symbol of each keys (col. 2, 13-18). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify and include Buisson's flat LCD for displaying configured symbols assigned to each key, to Lata such that the keyboard could be improved with the LCD display for the symbol of the key with better view.

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lata in view of Buisson, and further in view of Berman et al. (US 5,760,773).

In the above, it does not clearly indicate the touch sensitive of the LCD device.

Regarding **claim 3**, Berman teaches the LCD devices are touch sensitive. Berman teaches a method and handheld apparatus, figure in cover page, Fig. 1, 2, for displaying and manipulating information a computer display screen, having the graphic icons (col. 1, lines 6-14). Berman considers using the pen 12, Fig 1, col. 7, line 57, to manipulate the information displayed on the screen. Berman shows the touch sensitive LCD display 18 in col. 11, lines 5-15). Berman provides the solution for efficient graphic user interface (col. 6, lines 37-39) such that the displayed object could be efficiently activated by the touch of the LCD screen using pen 12 and the keyboard could be upgraded by using the pen (col. 3, line 53 to col. 4, line 3). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify and include Berman's efficient graphic user interface for efficient activated the displayed object by the touching the LCD screen using pen 12 for replacing the keyboard by using LCD and pen, to Lata as modified above, such that the keyboard system would be efficient, upgraded, with the touch sensitive display.

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lata in view of Bowen (US 5,502,460).

In the above, it does not clearly indicate the voice based keyboard device.

Regarding **claim 4**, Bowen teaches the keyboard device is voice based. Bowen teaches a keyboard having speakers (abstract, figure in cover page, col. 2, line 65 to col. 3, line 3). Bowen teaches the speaker provides the keyboard operator with the audible verbal message, in response to key entry or computer transmitted message (col. 10, lines 5-7). It would be

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obvious to include Bowen's voice verbal message from keyboard, to Lata, such that the message could be efficiently transmitted to the keyboard user. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify and include Bowen's voice verbal message from keyboard, to Lata as modified above, such that the message could be efficiently transmitted to the keyboard user.

7. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lata in view of Frager et al. (US 6,268,806 B1).

In the above, it does not clearly indicate the sound based keyboard device.

Regarding **claim 5**, Frager teaches the keyboard device is sound based. Frager teaches a multimedia keyboard has stereophonic wired speakers 25 for the audio sound signal from the sound card within the computer (title, abstract, figure in cover page; col. 5, lines 20-29). It would be obvious, to include Frager's speaker in keyboard for the audio sound signal, to Lata, such that the audio sound signal could be efficiently transmitted to keyboard user via the speaker with the keyboard (col. 2, lines 37-52). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify and include Frager's speaker in keyboard for the audio sound signal, to Lata as modified above, such that the audio sound signal could be efficiently transmitted to the close-in keyboard user via the speaker in the keyboard.



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8. Claims 6, 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lata in view of Gladwin et al. (US 6,209,034 B1).

In the above, it does not clearly indicate the keyboard device is macro based, including key, sound or voice.

Regarding **claim 6**, Gladwin teaches the keyboard device is macro based with key, sound, voice. Gladwin teaches a technique for the remote keyboard macros activated by hot icons (title, abstract, Fig. 1, 2). Gladwin teaches the wireless interface device is provided with more user-defined hot icons, in response to a pen-down event, can be used to activate a keyboard macro, abstract. In Fig. 66a-66d, it shows the various keyboard configuration from the downloaded macro. Gladwin In Fig. 37, the activated macro contains the speaker control). It would be obvious to include Galdwin's keyboard macro, to Lata, such that the keyboard system could used the wireless macro to control the host computer by using the mirroring anything from the host computer (col. 1, lines 46-52). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify and include Gladwin's keyboard macro, to Lata as modified above, such that the keyboard system could used the wireless macro to control the host computer by using the mirroring anything from the host computer.

Regarding **claim 7**, the keyboard device is wireless, referring to examiner's comment in claim 6 from Gladwin's wireless interface device.

9. Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lata in view of

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Gladwin, and further in view of Ross et al. (US 5,594,953).

In the above, it does not clearly indicate the keyboard device is a cellular telephone.

Regarding **claim 8**, Ross teaches the keyboard device is a cellular telephone because Ross teaches the mobile satellite communication system 26 having keyboard as the input device using rubber/carbon membrane mounted in the housing, for use in vehicle (abstract, figure in cover page, Fig. 2, 4, 8) for mobile satellite communication system 26 which is a cellular mobile telephone (as shown in col. 6, lines 20-29; col. 6, lines 51-52). It would be obvious to include Ross's mobile communication system 26 having keyboard as the mobile cellular telephone, to Lata, such that the device could be upgraded with the efficiency of having the cellular and mobile telephone features, as Ross suggested. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify and include Ross's mobile communication system 26 having keyboard as the mobile cellular telephone, to Lata as modified above, such that the device could be upgraded with the efficiency of having the cellular and mobile telephone features

Regarding **claim 9**, referring to examiner's comment in claim 8 above, Ross also provides the features for the mobile telephone device.

Regarding **claim 10**, referring to examiner's comment in claim 1 above, Lata's keyboard is not wireless.

10. Claims 11, 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lata in view of Laud (US 4,772,876).

In the above, it does not clearly indicate the remote means from the central server.

Regarding **claim 11**, Laud teaches the remote means from the central server. Laud teaches the remote security transmitter system, abstract, figure in cover page. The remote keyboard 32 could communication with the central server, central station 18, for user to interface with the security system to test the system, to disarm the commands related to the security transmitter programming, col. 5, lines 35-50). It would be obvious to include Laud's remote keyboard for communicating with central station, to Lata, such that the keyboard system could be upgraded with the communication features to the remote central station as suggested by Laud, for efficient user interface to the central station. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify and include Laud's remote keyboard for communicating with central station, to Lata as modified above, such that the keyboard system could be upgraded with the communication features allow user efficiently communicate with the central station.

Regarding **claim 12**, referring to examiner's comment in claim 1 above for the central server local to the keyboard device. The host system 10 (figure in cover page) provided the local control means for the keyboard.

11. Claims 13-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Callaghan et al. (US 6,058,304) in view of Lamb Jr. (US 5,276,794).

Regarding **claim 13**, Callaghan et al. (also as Callaghan in below) teaches a multifunction

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communication device (base unit 40 with pen 10 of the data entry system in Fig. 1-2, abstract; col. 4, line 33 to col. 5, line 10) for communication with remote processor center, having wireless cellular network interface to remote processor center (col. 4, line 62 to col. 5, line 10; col. 18, line 61 to col. 19, line 3, abstract). Callaghan teaches the telephone interface 116 and application specific integrated circuit ASIC 150 (Fig. 10/11) comprises telephone transmitter/receiver 170/172 (Fig. 12).

Callaghan teaches the central portable compute, command and control means for voice and data information (col. 18, lines 25-43, where handheld data entry device has controller for selecting command from input signal processing for communication with remote processing center for the downloading information).

Callaghan teaches the touch screen 90 (Fig. 8, col. 13, lines 5-18). Callaghan further teaches the text, graphics and data from to the server, because Callaghan teaches the coded data having language or image, and fingerprints, signature, written text (as shown in col. 24, lines 62-67; col. 25, lines 9-11).

Callaghan teaches the remote processing center of the wireless cellular network for communication with the handheld data entry device (as shown above) using telecomm. interface (col. 22, lines 9-21; col. 22, lines 38-48).

Callaghan teaches the control card for pen 10 can be a keyboard (col. 9, lines 60-65).

Callaghan does not clearly teach the keyboard including a touch screen display for displaying selected functional text and graphics.

Lamb teaches the intelligent keyboard (pop-up keyboard, figure in cover page, Fig. 4a/4B) by

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tapping (col. 4, line 38; col. 4, line 62; col. 4, lines 32-66) a touch sensitive screen (col. 3, lines 36-51) using a pen for entering alphanumeric information into data field 16 or price information (Fig. 4B). Lamb teaches the configuring the touch screen input from screen in Fig. 4A to Fig. 4B. Lamb teaches the selected functionality on the touch screen by tapping customer name field area 16 (Fig. 4A) and the price field (Fig. 4B) for actuating the input and output functionality on the touch screen by the touch sensitive tapping means. Lamb teaches an improved technique of the convenient, efficient, data entry by using popup keyboard and touch screen (col. 2, lines 20-44). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Callaghan above, and include Lamb's convenient, efficient, data entry using popup keyboard and touch screen, such that the user's information could be efficiently, conveniently entered into the system.

Regarding **claim 14**, referring to Lamb above for the intelligent keyboard with touch screen.

Referring to Callaghan above for the remote processing power of the remote processing center.

Regarding **claim 15**, referring to Callaghan above, (in col. 9, lines 50-59, using the same combination reasoning), for the multiple channel multiplexing. Referring to Callaghan above for the transmitter and receiver, the communication of the telephone information using voice, text, graphic and data.

Regarding **claim 16**, referring to Callaghan above (in col. 21, lines 45-60, col. 24, lines 62-67, using the same combination reasoning) for the communicating on multiple input and output channels(Callaghan's multiple telephone lines 50 in Fig. 5) for the voice, text, graphics, data information.

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Regarding **claim 17**, referring to Callaghan above, using the same combination reasoning, for the maintaining, modifying, personalizing, customizing lookup tables and databases, as shown above for the remote processing center. Referring to Lamb above for the more menus related to standard keyboard, and the dynamically configuring the keyboard in Fig. 4A to keyboard in Fig. 4B.

Regarding **claim 18**, Referring to Callaghan above for the wireless cellular network interface having transmitter and receiver, and Lamb's computer for data entry, for the cellular telephone, PDA, mobile computer, and intelligent appliance.

***Allowable Subject Matter***

12. Claims 19-42 are allowable over the prior art of record.

The following is the examiner's statement for the reasons of allowance:

Claims 19-42 are allowable because the prior art fails to teach singly or in combination for claimed features, with priority benefit of filing date 12/16/1996, for a wireless/mobile intelligent keyboard system with touch sensitive screen, having means for dynamically reconfiguring the keyboard functionality, means for changing a legend associated with the keyboard, the processor residing within keyboard for performing multiple tasks of voice recognition, handwriting recognition, language translation, means for communicating with central server with text, graphic, data, and to dynamically alter the keyboard functionality, means for leveraging the tremendous processing power of the intelligent keyboard and processing power of a central, local and/or network server. The intelligent keyboard system further comprises claimed features for the secure and trusted escrow server, the collaborating

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between keyboard and server, the means for maintaining revision control, the means for time stamping the access, the means for negotiating the final version, the means for indicating agreement by both parties for sign off product, the means for acquiring a retinal scan of user, the dynamic IP address, the discrete and macro function icons/customer icons. The prior arts does not teach the above claimed features.

Considerations has been made to the following relevant prior arts:

Lata-'888 teaches a programmable multifunction keyboard 16, with plurality of keys 18, and a host system 10. Lata teaches the display of legend for key; the dynamically changing keyboard configuration from configuration 70 to configuration 72 and configuration 74.

Lata teaches a database within the keyboard processor 12. Lata teaches the actuation control means 46 for monitoring the actuation of a switch to identify the actuated switch. Lata teaches the displayed legend associated with each key switch. Lata does not teaches the light up keyboard with color, having different languages, different keyboard menus in conjunction with the processing power of central, local, or network server. Lata does not teach the secure and trusted escrow server, the collaborating between keyboard and server, the means for maintaining revision control, the means for time stamping the access, the means for negotiating the final version, the means for indicating agreement by both parties for sign off product, the means for acquiring a retinal scan of user, the dynamic IP address, the discrete and macro function icons and customer icons.

Buisson -'637 teaches the plurality of keys each include an LCD device. Buisson teaches the assigning defined distinct configuration for each key of the keyboard requested by

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operator, and the graphic flat panel display is a liquid crystal display LCD to display the symbol assigned to each key. Buisson does not teach the secure and trusted escrow server, the collaborating between keyboard and server, the means for maintaining revision control, the means for time stamping the access, the means for negotiating the final version, the means for indicating agreement by both parties for sign off product, the means for acquiring a retinal scan of user, the dynamic IP address, the discrete and macro function icons and customer icons.

Callaghan-'304 teaches a base unit 40 with pen 10 of the data entry system for communication with remote processor center, having wireless cellular network interface to remote processor center. Callaghan teaches the telephone interface 116 and application specific integrated circuit ASIC 150 comprises telephone transmitter/receiver 170/172. Callaghan-'304 teaches a handheld data entry device has controller for selecting command from input signal processing for communication with remote processing center for the downloading information. Callaghan teaches the touch screen 90 and the coded data having language or image, fingerprints, signature, and written text. Callaghan does not teach the light up keyboard with color, the means for communicating with central server to dynamically alter the keyboard functionality, means for leveraging the tremendous processing power of the intelligent keyboard and processing power of a central, local and/or network server. Callaghan does not teach the secure and trusted escrow server, the collaborating between keyboard and server, the means for maintaining revision control, the means for time stamping the access, the means for negotiating the final version, the means for indicating agreement by both parties for sign off product, the means for acquiring a



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retinal scan of user, the dynamic IP address, the cescrete and macro function icons and customer icons.

Lamb-'794 teaches a pop-up keyboard, the tapping a touch sensitive screen using a pen for entering alphanumeric information into data field 16 or price information. Lamb teaches the configuring the touch screen input from screen. Lamb teaches the selected functionality on the touch screen by tapping customer name field area 16 and the price field for actuating the input and output functionality on the touch screen by the touch sensitive tapping means. Lamb does not teach the light up keyboard with color, and the means for communicating with central server to dynamically alter the keyboard functionality, means for leveraging the tremendous processing power of the intelligent keyboard and processing power of a central, local and/or network server. Lamb does not teach the secure and trusted escrow server, the collaborating between keyboard and server, the means for maintaining revision control, the means for time stamping the access, the means for negotiating the final version, the means for indicating agreement by both parties for sign off product, the means for acquiring a retinal scan of user, the dynamic IP address, the cescrete and macro function icons and customer icons.

***Response to Arguments  
And  
Conclusion***

13. Applicant's arguments with respect to claims 1-18 have been considered but are moot in view of the new ground(s) of rejection.

Regarding applicant's amendment for no teaching for the means for dynamically

reconfiguring of the entire keyboard; means for voice recognition; hand writing recognition; the central server; the means for leveraging the tremendous processing power of the intelligent keyboard; the grounds of rejection is changed by including Callaghan (US 6,058,304) and Lamb Jr. (US 5,276,794).

Callaghan teaches a multifunction communication device (base unit 40 with pen 10 of the data entry system in Fig. 1-2, abstract; col. 4, line 33 to col. 5, line 10) for communication with remote processor center, having wireless cellular network interface to remote processor center (col. 4, line 62 to col. 5, line 10; col. 18, line 61 to col. 19, line 3, abstract). Callaghan teaches the telephone interface 116 and AISC 150 (Fig. 10) comprises telephone transmitter/receiver 170/172 (Fig. 12). Callaghan teaches the central portable compute, command and control means for voice and data information (col. 18, lines 25-43, where handheld data entry device has controller for selecting command from input signal processing for communication with remote processing center for the downloading information). Callaghan teaches the touch screen 90 (Fig. 8, col. 13, lines 5-18). Callaghan further teaches the text, graphics and data from to the server, because Callaghan teaches the coded data having language or image, and fingerprints, signature, written text (as shown in col. 24, lines 62-67; col. 25, lines 9-11). Callaghan teaches the remote processing center of the wireless cellular network for communication with the handheld data entry device (as shown above) using telecomm. interface (col. 22, lines 9-21; col. 22, lines 38-48). Callaghan teaches light up keyboard with color, and the control card for pen 10 can be a keyboard (col. 9, lines 60-65).

Lamb teaches the intelligent keyboard (pop-up keyboard, figure in cover page, Fig.

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4a/4B) by tapping (col. 4, line 38; col. 4, line 62; col. 4, lines 32-66) a touch sensitive screen (col. 3, lines 36-51) using a pen for entering alphanumeric information into data field 16 or price information (Fig. 4B). Lamb teaches the configuring the touch screen input from screen in Fig. 4A to Fig. 4B. Lamb teaches the selected functionality on the touch screen by tapping customer name field area 16 (Fig. 4A) and the price field (Fig. 4B) for actuating the input and output functionality (popup keyboard and data field) on the touch screen by the touch sensitive tapping means.

In view of the disclosures, claims 1-18 are remaining in the rejection manner.

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

15. Any inquiry concerning this communication or earlier communications from the examiner

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should be directed to Charles Chow whose telephone number is (703)-306-5615.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor,

Daniel Hunter, can be reached at (703)-308-6732.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to: (703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,

Arlington, VA, Sixth Floor (Receptionist).


Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the Technology Center 2600 Customer Service Office

whose telephone number is (703) 306-0377.

Charles Chow

October 10, 2003.

  
EDWARD F. URBAN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600